

AMENDMENTS TO THE CLAIMS

1-8. **(Canceled)**

9. **(New)** A visual processing device comprising:

a visual processing unit operable to determine a conversion characteristic for an image signal that has been input in accordance with information on surroundings obtained from a plurality of pixels surrounding a target pixel, convert the target pixel in accordance with the conversion characteristics and output an output signal generated by performing visual processing to the image signal; and

a parameter output unit operable to output an adjustment parameter based on a parameter expressing the ambient light,

wherein the visual processing unit outputs the output signal generated by adjusting the brightness and/or the local contrast of the image signal based on the contrast between an average signal value of a plurality of pixels surrounding the target pixel and the value of the target pixel, and corrects the degree of adjustment of the brightness and/or the local contrast of the image signal based on the adjustment parameter.

10. **(New)** The visual processing device comprising:

a spatial processing unit operable to perform a predetermined spatial processing to an image signal that has been input, by using pixels surrounding a target pixel, and output a processed signal;

a visual processing unit operable to receive the image signal and the processed signal as input, and output an output signal generated by performing visual processing to the image signal; and

a parameter output unit operable to output an adjustment parameter based on a parameter expressing the ambient light,

wherein the visual processing unit outputs the output signal generated by adjusting the brightness and/or the local contrast of the image signal based on the contrast between the processed signal and the image signal, and corrects the degree of adjustment of the brightness

and/or the local contrast of the image signal based on the adjustment parameter.

11. **(New)** The visual processing device according to claim 10,

wherein the visual processing unit has a processing characteristic that within a predetermined input range, when the value of the image signal is fixed to a predetermined level, the value of the output signal monotonically decreases with respect to the value of the processed signal, outputs an output signal generated by adjusting the brightness and/or the local contrast of the image signal based on the contrast between the processed signal and the image signal, and corrects the degree of adjustment of the brightness and/or the local contrast of the image signal based on the adjustment parameter.

12. **(New)** The visual processing device according to claim 10,

wherein the visual processing unit outputs an output signal generated by enhancing the brightness of the image signal based on the contrast between the processed signal and the image signal, and increases the degree of enhancement of the brightness of the image signal as the brightness of the ambient light becomes high based on the adjustment parameter.

13. **(New)** The visual processing device according to claim 10,

wherein the visual processing unit has a processing characteristic that within a predetermined input range, when the value of the image signal is fixed to a predetermined level, the value of the output signal monotonically decreases with respect to the value of the processed signal, outputs an output signal generated by enhancing the brightness of the image signal based on the contrast between the processed signal and the image signal, and increases the degree of enhancement of the brightness of the image signal as the brightness of the ambient light becomes high based on the adjustment parameter.

14. **(New)** The visual processing device according to claim 10,

wherein the visual processing unit has a processing characteristic that, within a predetermined input range,

when the value of the image signal is fixed to a predetermined level, the value of the output signal monotonically decreases with respect to the value of the processed signal;

when the value of the image signal is equal to the value of the processed signal, the value of the output signal is convex upward with respect to the value of the image signal; and

when the value of the image signal is equal to the value of the processed signal, the degree that the value of the output signal is convex upward with respect to the value of the image signal is high as the brightness of the ambient light becomes high based on the adjustment parameter.

15. **(New)** The visual processing device according to claim 10,

wherein the visual processing unit outputs an output signal generated by broadening a difference/ratio between the processed signal and the image signal based on the contrast between the processed signal and the image signal to enhance the local contrast, and increases the degree of enhancement of the local contrast of the image signal as the brightness of the ambient light becomes high based on the adjustment parameter.

16. **(New)** The visual processing device according to claim 10,

wherein the visual processing unit has a processing characteristic that within a predetermined input range, when the value of the image signal is fixed to a predetermined level, the value of the output signal monotonically decreases with respect to the value of the processed signal, outputs an output signal generated by broadening a difference/ratio between the processed signal and the image signal based on the contrast between the processed signal and the image signal and enhances the local contrast, and increases the degree of enhancement of the local contrast of the image signal as the brightness of the ambient light becomes high based on the adjustment parameter.

17. **(New)** The visual processing device according to claim 10,

wherein the visual processing unit has a processing characteristic that, within a predetermined input range,

when the value of the image signal is fixed to a predetermined level, the value of the output signal monotonically decreases with respect to the value of the processed signal;

when the value of the processed signal is fixed to a predetermined level, the value of the output signal is convex downward with respect to the value of the image signal; and

when the value of the processed signal is fixed to a predetermined level, the degree that the value of the output signal is convex upward with respect to the value of the image signal is high as the brightness of the ambient light becomes high based on the adjustment parameter.

18. **(New)** The visual processing device according to claim 9,

wherein the parameter output unit outputs an adjustment parameter based on the parameter expressing the ambient light and an outside parameter that is input from an outside portion.

19. **(New)** The visual processing device according to claim 9,

wherein the parameter output unit switches either a first mode or a second mode according to a switch signal, the first mode of outputting an adjustment parameter based on a parameter expressing the ambient light, the second mode of outputting an adjustment parameter based on a parameter expressing the ambient light and an outside parameter that is input from an outside portion.

20. **(New)** The visual processing device according to claim 9, further comprising:

a time change adjustment unit operable to control the change over time in the parameter expressing the ambient light or the adjustment parameter.

21. **(New)** An image display device comprising:

a visual processing unit operable to determine a conversion characteristic for an image signal that has been input in accordance with information on surroundings obtained from a plurality of pixels surrounding a target pixel, convert the target pixel in accordance with the conversion characteristic and output an output signal generated by performing visual processing

to the image signal;

a display unit operable to display the output signal; and

a parameter output unit operable to output an adjustment parameter based on a parameter expressing the ambient light,

wherein the visual processing unit outputs the output signal generated by adjusting the brightness and/or the local contrast of the image signal based on the contrast between an average signal value of a plurality of pixels surrounding the target pixel and the value of the target pixel, and corrects the degree of adjustment of the brightness and/or the local contrast of the image signal based on the adjustment parameter.

22. **(New)** The image display device according to claim 21,

wherein the parameter output unit comprises a brightness detection unit operable to detect the brightness of the display environment of the display unit, and output the adjustment parameter in accordance with the brightness of the display environment detected by the brightness detection unit.

23. **(New)** A visual processing method comprising:

determining a conversion characteristic for an image signal that has been input in accordance with information on surroundings obtained from a plurality of pixels surrounding a target pixel, converting the target pixel in accordance with the conversion characteristic and outputting an output signal generated by performing visual processing to the image signal; and

outputting an adjustment parameter based on a parameter expressing the ambient light,

wherein the output signal is generated by adjusting the brightness and/or the local contrast of the image signal based on the contrast between an average signal value of a plurality of pixels surrounding the target pixel and the value of the target pixel, and the degree of adjustment of the brightness and/or the local contrast of the image signal is corrected based on the adjustment parameter.

24. **(New)** A processor used for an image output device, the processor executes the processes

of:

determining a conversion characteristic for an image signal that has been input in accordance with information on surroundings obtained from a plurality of pixels surrounding a target pixel, converting the target pixel in accordance with the conversion characteristic and outputting an output signal generated by performing visual processing to the image signal; and outputting an adjustment parameter based on a parameter expressing the ambient light, wherein the output signal is generated by adjusting the brightness and/or the local contrast of the image signal based on the contrast between an average signal value of a plurality of pixels surrounding the target pixel and the value of the target pixel, and the degree of adjustment of the brightness and/or the local contrast of the image signal is corrected based on the adjustment parameter.

25. **(New)** A storage medium storing an image processing program that causes a computer to perform a visual processing method, the method comprising:

determining a conversion characteristic for an image signal that has been input in accordance with information on surroundings obtained from a plurality of pixels surrounding a target pixel, converting the target pixel in accordance with the conversion characteristic and outputting an output signal generated by performing visual processing to the image signal; and outputting an adjustment parameter based on a parameter expressing the ambient light, wherein the output signal is generated by adjusting the brightness and/or the local contrast of the image signal based on the contrast between an average signal value of a plurality of pixels surrounding the target pixel and the value of the target pixel, and the degree of adjustment of the brightness and/or the local contrast of the image signal is corrected based on the adjustment parameter.